Ursus priscus of Goldfuss from Gailenruth cavern, and the existing largest varieties of *Ursus arctos*, or the Irish bears. These specimens have much strengthened, if not quite confirmed, a growing suspicion that *U. priscus* is specifically identical with, and was the progenitor of, our European *U. arctos*; at the same time, they prove that *U. priscus* was not the mere female, as M. De Blainville believes, of *U. spelæus*. Your three specimens are all of the same species; the largest is the male, the smallest with well-worn molars, the female. Now the large male skull establishes the specific distinction of the equally large male *Ursus spelæus*, and consequently the specific and not merely sexual distinction of *U. priscus*; but at the same time, the Irish crania show that the character of the forehead alluded to in my 'British Fossil Mammalia,' p. 83, is not constant, and not good for a specific difference with *Ursus arctos*. To conclude, then, as at present informed, I should refer your Irish skulls to *Ursus arctos*; and the least degenerated representative of that species now living, viz. the great black bear, or very dark brown variety of the Scandinavian wilds, is that which comes closest to the old Irish bears. Whether this respectable carnivore continued to exist after the slaughter of the last megaceros, will be shown by the precise bed in which the specimens were found. I should like to know the authority, if any, for their derivation from peat bog, and not from shell marl, if the case be so.

"Ever yours,
"(Signed) R. Owen."

Mr. Ball was of opinion, from examination of the original bear skulls, that they were not in the peat, but in the marl below it, where he believed all the heads of the megaceros, probably fifty, which he had closely inspected, were found. In no case was peat to be discovered in the cavities, while in many marl was present. He expressed his gratification in finding that his own views were supported by those of Professor Owen, from whom, on this and other occasions, he had received kind aid. He also expressed his obligations to the Earl of Enniskillen, Mr. Baker, Mr. Cooke, and Mr. Warren, and concluded by moving the thanks of the Academy to Mr. Abraham Whyte Baker, sen., for his kindness in presenting casts of his valuable specimens to its museum of antiquities.

On the employment of Tar to preserve Wheat from the Attack of the Weevil. By M. Caillat.

In a late number of the 'Comptes Rendus' a note appeared by M. G. Barruel relative to the action of carbonic oxide upon weevils and the employment of this gas for their destruction. Some journals, and among others 'L'Écho Agricole,' very lately published another means of destroying these insects, pointed out by Mr. William Little, and which consists in the use of ammoniacal gas. This young English chemist states that in the presence of this gas the weevils perish instantly, as if struck by lightning.

I have proved, before several witnesses, that ammonia does not kill the weevils, for after remaining some minutes in the gas or in the ammoniacal liquid, they get on their feet again, and run about perfectly when removed from the influence of the caustic alkali. However, the prolonged action of this gas, like that of carbonic oxide, carbonic acid, or any other gas not respirable for large animals, kills these insects in a shorter or longer time. I know not what arrangement of a simple and œconomical kind, within the reach of all cultivators, large and small, rich or poor, would be adopted by M. G. Barruel for the application of the carbonic oxide, or by Mr. W. Little for that of ammonia; but I must point out a substance, the use of which is much more practical and less expensive, namely tar. The efficacy of this substance against the weevils is known to many agriculturists and corn-merchants.

I placed, in a half-pint bottle, well closed by a cork, three very lively and healthy weevils; at the same time I introduced a small open phial containing a little tar; presently the uneasiness of these animals was perceptible; they soon fell on their back, shaking their feet without being able to use them to get up again. The smell alone of the tar, in a close space, is therefore fatal to these insects. If the upper part of the closed vessel in which the weevils are shut up be smeared with tar, they die more quickly.

The efficacy of tar, in driving away these insects and preserving the corn, is an incontestable fact. My father had, a long time ago, his granaries, barns and the whole house infested by weevils, so much so that they penetrated into all the chests and among the linen. He placed an open cask impregnated with tar in the barn, and then in the granaries; at the end of some hours, the weevils were seen climbing along the walls by myriads, and flying in all directions away from the cask. On moving this tarred vessel from place to place, the house was in a few days completely cleared of these troublesome and pernicious guests.

The agriculturist who wants to get rid of weevils, may, as soon as he perceives their presence, impregnate the surface of some old planks with tar, and place them as required in his granaries; care must be taken to renew the tar from time to time in the course of the year to prevent the return of the insects.—*Comptes Rendus*, Oct. 15, 1849.

DR. ROBERT BALL.

We have had much pleasure in noticing and commending the encouragement which the study of Natural History receives in Ireland, and to record with great satisfaction that the degree of LL.D. has been conferred by the Board of Trinity College, Dublin, upon Robert Ball, Esq., who has for some time had the Museum of the College under his superintendence, and whose efforts for the advancement of Natural History in general, and of Zoology in particular, are universally known. With similar feelings of pleasure, as to the interests of our favourite pursuit and of other branches of learning, we look upon the appointments in the recently established colleges, from which the happiest results are to be expected.

METAMORPHOSES OF DONACIA SAGITTARIA.

In this notice M. Perris gives some details on the mode of life of the larvæ of the *Donaciæ,* of which little was previously known. They live on *Sparganum ramosum,* near the roots and at the base of the leaves, which are immersed, for the greater part, in water, feeding on the sap rather than on the tissue of the plant.

How do these larvæ respire under water, as they have no branchial organs? M. Perris thinks that the respiration is effected by means of endosmosis, which occurs through the membrane covering the stigmata.

When the larva is about to undergo its metamorphosis, it buries itself in the mud in which the plant is rooted, and forms upon the root an elliptical cocoon, which is not of a silky nature, but of a dry gummy substance, about the thickness of a sheet of paper.

The author was not able to observe this larva whilst forming its cocoon, and only ventures suppositions as to the mode which it employs to construct this case without allowing a single drop of water to penetrate into it.—*Bibliothèque Universelle de Genève,* June 1849.

WILD ANIMALS OF ANCIENT BRITAIN.

To the Notes in Vol. iii. Ser. 1. p. 356 and Vol. iv. Ser. II. p. 423, on the Wild Animals of Britain, and the Huntings of the Citizens of London, may be added the following, in which it appears that the Wild Cat is enumerated.—R. T.

Rotuli Hundredorum. 3° *Edwardi I. Membr.* 13.

Item dicunt, Quod Libertas Civitatis Domini Regis talis est: Quod Cives, cum canibus suis possunt currere ad Lepores Vulpes Cuniculos et Murelegos [Catos[*]] usque ad Pontem de Stanes; et ad januam Parci de Enefende, et ad Arcubus de Stratforde, et ad Crucem de Wautham; sed ista libertas impeditur per Warennam Comitis Cornubiæ, apud Histleworth[†], et Warrenam Willielmi de Say, apud Edelmeton[‡]; nesciunt quo warranto.

"Wild cats," says Pennant, "were formerly reckoned among the beasts of chase; as appears by the charter of Richard the Second to the Abbot of Peterborough, giving him leave to hunt the hare, fox, and wild cat. The use of the fur was in lining of robes, but it was esteemed not of the most luxurious kind; for it was ordained 'that no abbess or nun should use more costly apparel than such as is made of camel's or cat's skins.' In much earlier times it was also the object of the sportsman's diversion.

> Felemque minacem
> Arboris in trunco longis præfigere telis.
> *Nemesiani Cynegeticon,* L. 55."

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[*] In the copy of the roll in the Chapter-house, Westminster, Membr. 3, the reading is "Catos."—Murilegus, *Voss.* Felis.—*Du Cange,* v. Catta, Cattus.

[†] Isleworth.

[†] Edmonton.

Errata in Mr. Babington's Paper on Chara.

P. 84. *C. mucronata* was found at *West*, not *East* Grinstead.

P. 91. *C. aspera.* Mr. Borrer did not find this nor any other species at Carlton, Notts; that station therefore must be erased.

P. 91. *C. Hedwigii.* For *East* read *West* Grinstead.

METEOROLOGICAL OBSERVATIONS FOR JAN. 1850.

Chiswick.—January 1. Sharp frost: fine: cloudy. 2. Hazy: fine. 3. Foggy: hazy. 4. Foggy: overcast: clear. 5, 6. Frosty: very fine: clear and frosty. 7. Sharp frost: clear: severe frost at night. 8. Frosty: overcast. 9. Slight fall of granular snow: overcast. 10. Snowing slightly: overcast. 11. Hazy throughout. 12. Slight snow: dusky: hazy. 13. Hazy: clear and frosty. 14, 15. Cloudy and cold. 16, 17. Densely overcast. 18. Foggy: snow at night, with heavy rain. 19. Cloudy: drizzly. 20. Frosty. 21. Cloudy. 22. Hazy. 23. Hazy: clear at night. 24. Foggy and drizzly. 25. Foggy: densely overcast: rain at night. 26. Densely clouded: showery. 27. Sudden rise of barometer: frosty: very fine. 28. Overcast. 29. Very fine: rain. 30. Foggy: very fine. 31. Hazy and cold: heavy rain at night.

Mean temperature of the month	33°·11
Mean temperature of Jan. 1849	39 ·56
Mean temperature of Jan. for the last twenty-four years	36 ·60
Average amount of rain in Jan.	1·60 inch.

Boston.—Jan. 1. Fine. 2. Cloudy. 3, 4. Cloudy: rain P.M. 5—8. Fine. 9—11. Cloudy. 12. Cloudy: snow A.M. 13. Fine. 14—17. Cloudy. 18. Cloudy: snow and rain P.M. 19. Cloudy: rain early A.M. 20. Cloudy: snow A.M. 21, 22. Cloudy. 23. Fine. 24. Cloudy. 25. Fine. 26. Cloudy: rain and snow P.M. 27. Fine. 28. Cloudy. 29, 30. Fine. 31. Fine: rain P.M.—N.B. This has been the coldest January since the year 1838.

Applegarth Manse, Dumfries-shire.—Jan. 1. Frost: dull and threatening change. 2. Thaw: small rain. 3. Thaw: drizzle. 4. Slight frost early A.M.: rain and wind P.M. 5. Snow half an inch deep: frost. 6. Frost very hard: snow lying. 7, 8. Frost very hard. 9. Frost very hard: thermometer 11°. 10. Cloudy, looking like change. 11. Cloudy, but still freezing. 12. Still slight frost, but unsettled. 13. Frost still slight: cloudy. 14. Frost, slight A.M.: harder P.M. 15. Bright and clear: hard frost: a little snow. 16. Frost: slight shower of snow: looking dull. 17. Hard frost: clear: snow lying. 18. Hard frost, and heavy snow 4 inches deep. 19. Frost not so hard: thaw P.M.: frost again. 20. Frost: additional sprinkling of snow. 21. Frost hard again. 22. Frost moderate. 23. Thaw: mild: cloudy. 24. Thaw: snow melting fast. 25. Rain in the night: thaw continuing. 26. Thaw A.M.: came on to freeze at 6 P.M. 27. Hard frost A.M.: thaw and rain P.M. 28. Heavy rain: snow nearly gone. 29. Slight frost A.M.: keener P.M. 30. Frost moderate: snow all gone. 31. Slight shower of snow A.M.: frost: rain P.M.

Mean temperature of the month	30°·8
Mean temperature of Jan. 1849	36 ·3
Mean temperature of Jan. for the last twenty-eight years	34 ·9
Average amount of rain in Jan. for the last twenty years	2·60 inches.

Sandwick Manse, Orkney.—Jan. 1. Cloudy. 2. Bright: fine: rain. 3. Showers: sleet-showers. 4. Thunder: sleet-showers. 5. Thunder: showers. 6. Sleet-showers. 7. Sleet-showers: clear. 8. Cloudy. 9. Rain: cloudy. 10. Cloudy: sleet-showers. 11. Cloudy: clear. 12. Snow-showers: cloudy. 13. Cloudy: clear: frost: aurora. 14. Snow-showers: snow-drift. 15. Snow-drift. 16. Snow-drift: snow: thaw. 17. Rain: clear: frost: aurora. 18. Clear: frost: cloudy. 19. Snow-showers: cloudy: aurora. 20. Cloudy. 21. Cloudy: thaw. 22. Showers: drizzle. 23, 24. Drizzle. 25. Cloudy: snow-showers. 26. Snow-showers: snow: clear. 27. Snow: frost: snow-showers. 28. Showers: drizzle. 29. Bright: large halo. 30. Fine: frost: clear: aurora. 31. Bright: rain.